

# FOTIMAKHON GULOMOVA

## Junior Machine Learning Engineer

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<https://github.com/fatimagulomova> Tashkent, Uzbekistan

## ABOUT ME

Applied AI graduate specializing in **machine learning, natural language processing, and explainable AI**, with hands-on experience building projects in **NLP, computer vision, and MLOps**. Completed a B.Sc. thesis focused on explainable mental health detection using emotion analysis and topic modeling. Interested in building **practical, transparent AI solutions** for real-world applications.

## EDUCATION

12/2021 - 06/2026

Berlin, Germany

B.Sc. Applied Artificial Intelligence

**IU International University of Applied Sciences**

- **Coursework:** Machine Learning, Deep Learning, Data Analytics, Natural Language Processing, Artificial Intelligence Ethics, Computer Vision, etc.

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## ACADEMIC PROJECTS

### Explainable Mental Health Detection from Reddit Posts (Thesis Project)

07/2025 - 11/2025

Conducted a comparative study on early detection of mental health disorders from Reddit posts using three experimental settings: text-only, text with emotion features, and text with emotion-topic features. Evaluated three machine learning models—SVM, Bi-LSTM, and BERT-base—across all settings, and applied SHAP to interpret textual predictions and explain model reasoning.

### Age, Gender, and Expression Recognition on Edge Devices (Deep Learning Project)

02/2025 - 03/2025

<https://github.com/fatimagulomova/DLBAIPEAI>

Developed an edge-deployable computer vision application for real-time age group, gender, and facial expression recognition on mobile devices using PyTorch and EfficientNetV2. Optimized the model for offline inference and integrated it into an Android application to enable fast, privacy-preserving predictions.

### Fraud Detection API with MLflow Monitoring (MLOps Project)

04/2026 - 05/2026

<https://github.com/fatimagulomova/fraud-detection-mlops>

Built an MLOps-oriented fraud detection system that scores applications through a REST API, supports retraining with new data, and tracks model versions with MLflow. Designed the workflow to strengthen deployment readiness, model monitoring, and secure API access for a government agency use case.

### Political Topic Modeling with BERTopic and LDA (Data Analysis Project)

04/2025 - 05/2025

<https://github.com/fatimagulomova/twitter-topic-extraction>

Implemented BERTopic and LDA pipelines to extract and compare political themes from 2024 U.S. election tweets. Evaluated topic coherence and interpretability to analyze trade-offs between transformer-based and probabilistic topic modeling approaches.

### Dockerized Sensor Data Batch Pipeline (Data Engineering Project)

05/2024 - 06/2024

<https://github.com/fatimagulomova/sensor-batch-storage-system>

Developed a Dockerized data engineering workflow for batch ingestion and storage of environmental sensor data. Structured the system for reproducible processing, containerized deployment, and reliable handling of batch data pipelines.

## KEY ACHIEVEMENTS



### 1st Place, Hacknovation 2024, Uzbekistan

Developed an innovative AI Health Assistant that uses advanced machine learning algorithms to provide personalized health recommendations.



### 2nd Place, NASA Space Apps Challenge Tashkent 2024

Developed *StoryAI*, an AI platform for generating climate stories using real-time data. Recognized for innovation and teamwork.

## SKILLS

### Soft Skills

Problem-Solving, Team Collaboration, Adaptability, Leadership, Adaptability & Resilience, Emotional Intelligence

### Technical Skills

Python, Machine Learning, Natural Language Processing (NLP), Computer Vision, Deep Learning, Topic Modeling, Explainable AI (XAI), MLOps, Data Analysis

## SKILLS

### Libraries & Frameworks

PyTorch, TensorFlow, scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, OpenCV, NLTK, BERTopic, LDA, YOLO, Flask, Streamlit, MLflow, Docker, REST APIs, Git, Selenium, Django

## CERTIFICATION

### Mathematics for Machine Learning and Data Science

DeepLearning.AI

### IELTS Band 7

British Council

## VOLUNTEERING

Volunteer

### IT Community of Uzbekistan

📅 04/2024 - Present

Volunteering in the IT Community of Uzbekistan has expanded my professional network. This experience has enhanced my teamwork, problem-solving abilities, and leadership skills.

## LANGUAGES

English  
Fluent



Uzbek  
Native



Russian  
Bilingual



German  
Beginner



## SOCIAL MEDIA

 **LinkedIn**

<https://www.linkedin.com/in/fatima-gulamova/>

 **GitHub**

<https://github.com/fatimagulomova>

 **Kaggle**

<https://www.kaggle.com/fotimakhongulomova>